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#### AMENDMENT TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1. **(Currently amended)** A system comprising:

~~a hardware component; and~~

~~a firmware component coupled to said hardware component and able to establish a noise level in a chip's noise floor register to store a noise floor value of a chip;~~

~~a noise event counter to count a number of noise events in which a direct-current offset value of said chip is bigger than said noise floor value; and~~

~~an approximator to update said noise floor register with an approximated noise floor value by performing the following operations one or more times:~~

~~causing said noise event counter to count said noise events; and~~

~~updating said noise floor value based on the number of said noise events.~~

2. **(Currently amended)** A system according to claim 1, wherein said noise level is comprises a noise level selected from the group consisting of a noise level of a receiver of said chip, and a noise level of a transmitter of said chip.

3. **(Currently amended)** A system according to claim 1, wherein said noise level is a noise level of a transmitter of said chip approximator is able to cause said noise event counter to count said noise events during at least two different time periods.

4. **(Currently amended)** A system according to claim 1, wherein said hardware comprises comprising:

a noise register to store a noise value;

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a noise register updater to update said noise value based on a comparison between said noise value and said direct-current offset value;  
a fine tuner to adjust the approximated noise floor value based on a plurality of noise values retrieved from said noise register,  
at least one digital to analog converter;  
at least one comparator able to receive output of said converter;  
at least one register able to be read by said firmware; and  
at least one register able to be written to by said firmware.

5. **(Currently amended)** A system according to claim 14, wherein said firmware comprises fine tuner comprises:

a noise tracker to retrieve said plurality of noise values from said noise register at a plurality of time intervals, respectively; and  
an evaluator to adjust said noise floor value based on said plurality of noise values.  
an approximator; and  
a fine tuner able to fine tune the approximation of said approximator.

6. **(Currently amended)** A method comprising

approximating a first noise level in an individual chip; and  
fine tuning said first noise level to produce a second noise level.  
storing a noise floor value of a chip; and  
determining an approximated noise floor value by performing the following operations one or more times:

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counting a number of noise events in which a direct-current offset value of a chip is bigger than said noise floor value; and  
updating said noise floor value based on the number of said noise events.

7. **(Currently amended)** A method according to claim 6 comprising, wherein said approximating comprises:

determining said first noise level according to a hardware result, storing a noise value;

updating said noise value based on a comparison between said noise value and said direct-current offset value;

fine tuning the approximated noise floor value based on a plurality of retrieved noise values.

8. **(Currently amended)** A method according to claim 6, wherein said fine tuning comprises:

determining said second noise level according to a hardware result.

retrieving said plurality of noise values at a plurality of time intervals, respectively; and

adjusting said noise floor value based on said plurality of noise values.

9. **(Currently amended)** A method according to claim 6, wherein said approximating comprises: determining said approximated noise floor value comprises counting said noise events during at least two different time periods.

reading from a noise event counter register; and

writing to a noise floor register.

10. **(Cancelled)**

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11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Currently amended) A system comprising:

a card; and

a chip attached to said card, said chip comprising:

a noise floor register to store a noise floor value of said chip;

a noise event counter to count a number of noise events in which a direct-current offset value of said chip is bigger than said noise floor value; and

an approximator to update said noise floor register with an approximated noise floor value by performing the following operations one or more times:

causing said noise event counter to count said noise events; and

updating said noise floor value based on the number of said noise events.

a hardware component; and

a firmware component coupled to said hardware component and able to establish a noise level in said chip.

15. (Currently amended) A system according to claim 14 comprising; wherein said noise level is a noise level of a receiver of said chip.

a noise register to store a noise value;

a noise register updater to update said noise value based on a comparison between said noise value and said direct-current offset value;

a fine tuner to adjust the approximated noise floor value based on a plurality of noise values retrieved from said noise register.

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16. **(Currently amended)** A system according to claim 1415, wherein said noise level is a noise level of a transmitter of said chip, fine tuner comprises:

a noise tracker to retrieve said plurality of noise values from said noise register at a plurality of time intervals, respectively; and

an evaluator to adjust said noise floor value based on said plurality of noise values.

17. **(Currently amended)** A home phone networking system comprising:

two or more computers, at least one of said computers each having a chip comprising:

a noise floor register to store a noise floor value of said chip;

a noise event counter to count a number of noise events in which a direct-current offset value of said chip is bigger than said noise floor value; and

an approximator to update said noise floor register with an approximated noise floor value by performing the following operations one or more times:

causing said noise event counter to count said noise events; and

updating said noise floor value based on the number of said noise events.

a hardware component; and

a firmware component coupled to said hardware component and able to establish a noise level in said chip.

18. **(Original)** A system according to claim 17, further comprising:

one or more peripheral devices coupled to at least one of said computers.